



U7749

Reg. No.:

Name:.....

**University of Kerala**

First Semester Degree Examination, November 2024

Four Year Under Graduate Programme

Discipline Specific Core Course

COMPUTER SCIENCE

UK1DSCCSC106 - DATA SCIENCE FUNDAMENTALS

Academic Level: 100-199

Time:1½ Hours**Max.Marks:42****Part A.****Answer All Questions , Objective Type. 1 Mark Each.****(Cognitive Level: Remember/Understand)****6 Marks. Time: 6 Minutes**

Qn. No.	Question	Cognitive Level	Course Outcome (CO)
1.	Give any two tools for model building	Remember	CO1
2.	List two types of data pre-processing operations.	Remember	CO2
3.	Write the purpose of using conditional formatting in data analysis.	Understand	CO3
4.	What is the key difference between virtual integration and physical data integration?	Understand	CO2
5.	Give use of the pivot table in the worksheet	Understand	CO3
6.	How do Gantt chart and Waterfall Chart differ in their representation of data?	Understand	CO4

Part B.**Answer All Questions , Short Answer. 2 Marks Each.****(Cognitive Level: Understand/Apply)****8 Marks. Time: 24 Minutes**

Qn. No.	Question	Cognitive Level	Course Outcome (CO)
7.	List out the phases of the data analytics life cycle.	Understand	CO1
8.	Describe the purpose of data transformation in the pre-processing stage.	Understand	CO2
9.	Explain any four text functions used in the Excel worksheet	Apply	CO3
10.	Demonstrate lookup function	Apply	CO4

Part C.

**Answer all 4 Questions, choosing among options within each question. Long Answer. 7 marks each
(Cognitive Level: Apply/Analyze)
28 Marks. Time: 60 Minutes**

Qn. No.	Question	Cognitive Level	Course Outcome (CO)
11.	a)Differentiate between model building and model planning with example OR b)Outline Data Analytics Life Cycle with an example	Apply	CO1
12.	1. a)Specify the following attribute types of employees:- Emp id, Name, Post, Grade, Scale of pay, Basic pay, Age, Sex(M/F), leave type(Spl LV/CL/EL/DL), Loan amount. Define each type of attribute. OR b)How data types are classified and what are the possible errors?	Apply	CO2
13.	a)Explain spreadsheet functions for basic data cleaning and analysis. OR b)Write the steps to create a table with the employee id, name, post, and salary in a database table. Insert 10 records and list the total salary of employees.	Analyze	CO3
14.	a)Compare and contrast the effectiveness of line charts versus area plots for displaying temporal data OR b)Compare and contrast the effectiveness of any four data visualization techniques	Analyze	CO4